- 1. Write a Python program to find the sum of all prime numbers within a given range.
- 2. Write a Python program to check if a given number is a perfect number or not. (A perfect number is a positive integer that is equal to the sum of its proper divisors.)
- 3. Write a Python program to calculate the factorial of a given number using recursion.
- 4. Write a Python program to check if a given string is a palindrome or not.
- 5. Write a Python program to find the sum of all even numbers in a given list.
- 6. Write a Python program to find the second largest number in a given list.
- 7. Write a Python program to remove all duplicates from a given list and return new list without duplicates.
- 8. Write a Python program to count the frequency of each element in a given list and display the elements with their frequencies.
- 9. Write a Python program to reverse a given string without using any built-in string reversal functions or methods.
- 10. Write a Python program to find the maximum product of two integers in a given list.

Q1. What does this program print?

a = 1

while True:

if a
$$\% 9 = 0$$
:

break

print(a)

$$a += 1$$

- a. 123456
- b. 12345678
- c. 123456789
- d. none of these
- 2. What does this program print?

```
days = "Mon, Tue, Wed, Thu, Fri, Sat, Sun"
```

print(days[::5])

- a. Mon Tue Wed Thu Fri Sat Sun
- b. Fri
- c. MTWTFSS

d. T

3. The following python program can work with ____ parameters.

```
def f(x):
    def f1(*args, **kwargs):
        print("Sanfoundry")
        return x(*args, **kwargs)
    return f1
```

- a) any number of arguments
- b) 0
- c) 1
- d) 2
- Q4. Which of these is the definition for packages in Python?
- a) A set of main modules
- b) A folder of python modules
- c) A number of files containing Python definitions and statements
- d) A set of programs making use of Python modules
- Q5. What should be the output of this code

```
i = 0
while i < 5:
    print(i)
    i += 1
    if i == 3:
        break
else:
    print(0)
a) error
b) 0 1 2 0
c) 0 1 2
d) none of the mentioned</pre>
```

Q6. What should be the output of this code

```
def addItem(listParam):
listParam += [1]
```

```
mylist = [1, 2, 3, 4]
addItem(mylist)
print(len(mylist))
a) 5
b) 8
c) 2
d) 1
Q7. What is output of print(math.pow(3, 2))?
a) 9.0
b) None
c) 9
d) None of the mentioned
Q8. Which of the following is the use of id() function in python?
a) Every object in Python doesn't have a unique id
b) In Python Id function returns the identity of the object
c) None of the mentioned
d) All of the mentioned
Q9. What should be the output of this code
def foo():
  try:
     return 1
  finally:
     return 2
k = foo()
print(k)
a) error, there is more than one return statement in a single try-finally block
b) 3
c) 2
d) 1
Q10. What should be the output of this code\
```

elements = [0, 1, 2]

```
def incr(x):
    return x+1
print(list(map(elements, incr)))
a) [1, 2, 3]
b) [0, 1, 2]
c) error
d) none of the mentioned
```

Q11. What should be the output of this code

```
x = ['ab', 'cd']
print(map(len, x))
a) ['ab', 'cd']
b) [2, 2]
c) ['2', '2']
d) none of the mentioned
```

Q12. What should be the output of this code

```
s1={3, 4}

s2={1, 2}

s3=set()

i=0

j=0

for i in s1:

for j in s2:

s3.add((i,j))

i+=1

j+=1

print(s3)

a) {(3, 4), (1, 2)}

b) Error

c) {(4, 2), (3, 1), (4, 1), (5, 2)}

d) {(3, 1), (4, 2)}
```

Q13. What should be the output of this code

```
a={"a":1,"b":2,"c":3}
b=dict(zip(a.values(),a.keys()))
print(b)
a) {'a': 1, 'b': 2, 'c': 3}
b) An exception is thrown
c) {'a': 'b': 'c': }
d) {1: 'a', 2: 'b', 3: 'c'}
```

Q14. Which of the following statement is true?

- a. TRUNCATE free the table space while DELETE does not.
- b. Both TRUNCATE and DELETE statements free the table's space.
- c. Both TRUNCATE and DELETE statement does not free the table's space.
- d. DELETE free the table space while TRUNCATE does not.

Q15. Which of the following is true about the SQL AS clause?

- a. The AS clause in SQL is used to change the column name in the output or assign a name to a derived column.
- b. The SQL AS clause can only be used with the JOIN clause.
- c. The AS clause in SQL is used to defines a search condition.
- d. All of the mentioned